RM-X59RF

SERVICE MANUAL

US Model
Canadian Model
E Model

The RM-X59RF includes a hideaway unit, display, and wireless remote commander.

SPECIFICATIONS

Hideaway unit

Frequency	88.3 MHz/88.7MHz/ 89.7 MHz/89.9 MHz (switchable)
Dimensions	Approx. 125.2 × 31.6 × 128.2 mm (5 × 1 1/4 × 5 1/8 in.) (w/h/d)
Mass	Approx. 450 g (16 oz.)

Wireless remote

Dimensions	Approx. 66 × 108 × 20 mm (2 5/8 × 4 3/8 × 13/16 in.) (w/h/d)
Mass	Approx. 55 g (2 oz.) not incl. batteries

Display unit

Dimensions	Approx. 120 × 37 × 18.5 mm (4 3/4 × 1 1/2 × 3/4 in.) (w/h/d)
Mass	Approx. 115 g (4 oz.)

General

Supplied accessories	Parts for installation and connections (1 set)

Design and specifications are subject to change without notice.

使用時は添付資料も参照のこと
Refer to the additional documents

REMOTE COMMANDER SYSTEM

SONY®

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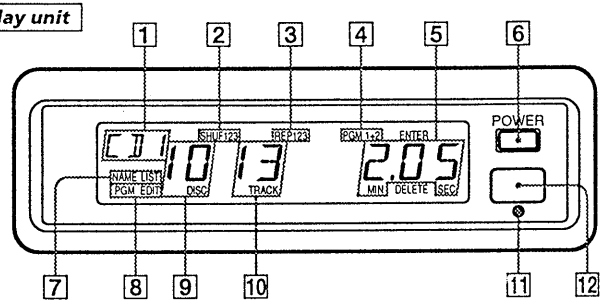
Location of controls

Display unit

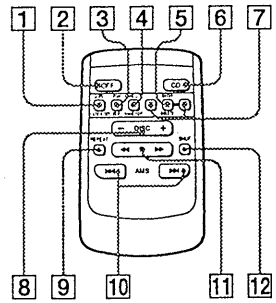


Refer to the pages for details.

1 **CD (CD Changer number) indication**
2 **SHUF (shuffle play) indication**
3 **REP (repeat play) indication**
4 **PGM (program memory function) indication 7, 8**
5 **Elapsed playing time indication**
6 **POWER switch 6**
Press to turn on and off the system.
7 **NAME LIST (list up function) indication 10**
8 **PGM EDIT (program edit mode) indication 7, 8**
9 **DISC (disc number) indication**
10 **TRACK (track number) indication**
11 **Reset button 4**
Press this button with a ball-point pen etc. when the operation buttons fail to function.
12 **Infrared receptor for the remote commander**

Location of controls

Wireless remote

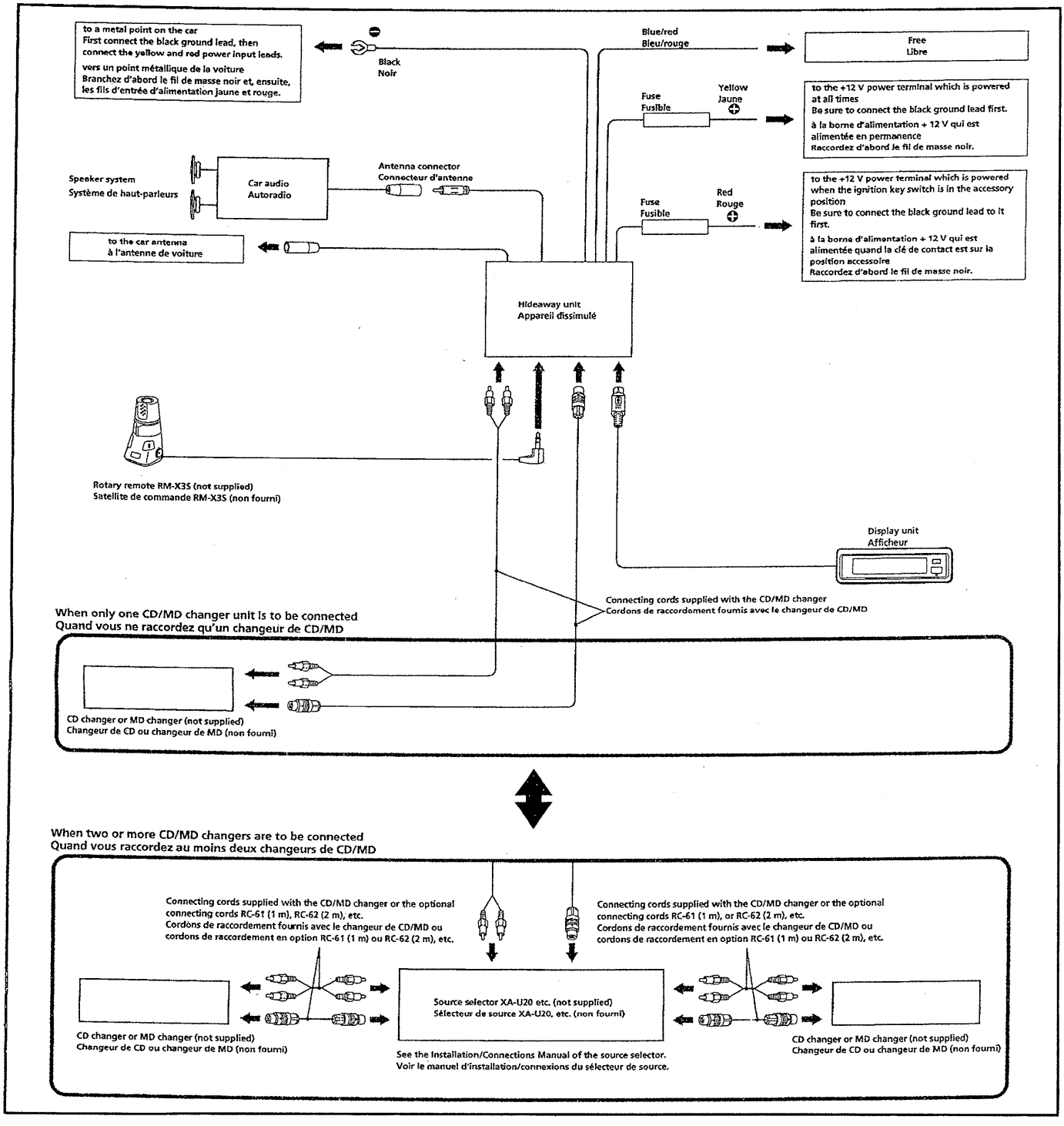


If you press the function buttons on the remote quickly, the function described above the button will be executed.
If you press the function buttons for at least two seconds, the functions described below the button will be executed.

Refer to the pages for details.

1 **DSPL (display mode change)/CLOCK SET (time set) button 5, 9**
2 **OFF button 6**
3 **PGM (program memory play)/EDIT (program edit mode) button 7, 8**
4 **NAME LIST (list up function)/NAME EDIT (name edit mode) button 9, 10**
5 **ENTER/DELETE button 5, 8, 9**
6 **CD (CD play/CD changer select) button 6**
When two or more CD changers are connected, press this button to select a desired CD changer. Every time you press the button, the CD changer number on the display unit will change.
7 **⊖ ⊕ (character select/list-up select/program select) button 5, 8, 9, 10**
8 **DISC (disc select) button**
9 **REPEAT (repeat play) button 6, 7**
10 **AMS (automatic music sensor) buttons**
Press either side of the button once during CD playback to search the beginning of a track (AMS function).
▶▶I side: To locate the beginning of the next track
I◀◀ side: To locate the beginning of the currently playing track
If you keep the button pressed, the beginnings of either the succeeding or the previous tracks will be located. However, if the beginning or the end of the disc is reached, you will not be able to go any further.
If you press the AMS button during program memory play, the tracks stored into program memory will be scanned in their order.
11 **◀◀•▶▶ (reverse•forward) button**
Press and hold either side of the button during CD playback to search a desired point of a track.
▶▶ side: To fast forward
◀◀ side: To fast reverse
The elapsed playing time of the track will be displayed on the display unit during the manual search.
12 **SHUF (shuffle play) button 6**

Connections/Connexions


to a metal point on the car
First connect the black ground lead, then connect the yellow and red power input leads.
vers un point métallique de la voiture
Branchez d'abord le fil de masse noir et, ensuite, les fils d'entrée d'alimentation jaune et rouge.
Black
Noir
Blue/red
Bleu/rouge
Free
Libre
Fuse
Fusible
Yellow
Jaune
to the +12 V power terminal which is powered at all times
Be sure to connect the black ground lead first.
à la borne d'alimentation + 12 V qui est alimentée en permanence
Raccordez d'abord le fil de masse noir.
Speaker system
Système de haut-parleurs
Car audio
Autoradio
Antenna connector
Connecteur d'antenne
Fuse
Fusible
Red
Rouge
to the +12 V power terminal which is powered when the ignition key switch is in the accessory position
Be sure to connect the black ground lead to it first.
à la borne d'alimentation + 12 V qui est alimentée quand la clé de contact est sur la position accessoire
Raccordez d'abord le fil de masse noir.
to the car antenna
à l'antenne de voiture
Hideaway unit
Appareil dissimulé
Rotary remote RM-X3S (not supplied)
Satellite de commande RM-X3S (non fourni)
Display unit
Afficheur
Connecting cords supplied with the CD/MD changer
Cordons de raccordement fournis avec le changeur de CD/MD
When only one CD/MD changer unit is to be connected
Quand vous ne raccordez qu'un changeur de CD/MD
CD changer or MD changer (not supplied)
Changeur de CD ou changeur de MD (non fourni)
When two or more CD/MD changers are to be connected
Quand vous raccordez au moins deux changeurs de CD/MD
Connecting cords supplied with the CD/MD changer or the optional connecting cords RC-61 (1 m), RC-62 (2 m), etc.
Cordons de raccordement fournis avec le changeur de CD/MD ou cordons de raccordement en option RC-61 (1 m) ou RC-62 (2 m), etc.
Connecting cords supplied with the CD/MD changer or the optional connecting cords RC-61 (1 m), or RC-62 (2 m), etc.
Cordons de raccordement fournis avec le changeur de CD/MD ou cordons de raccordement en option RC-61 (1 m) ou RC-62 (2 m), etc.
CD changer or MD changer (not supplied)
Changeur de CD ou changeur de MD (non fourni)
Source selector XA-U20 etc. (not supplied)
Sélecteur de source XA-U20, etc. (non fourni)
See the Installation/Connections Manual of the source selector.
Voir le manuel d'installation/connexions du sélecteur de source.
CD changer or MD changer (not supplied)
Changeur de CD ou changeur de MD (non fourni)

Caution

- This system is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the **yellow** and **red** power input leads only after all other leads have been connected.
- Be sure to connect the red power input lead to the positive 12 V power terminal which is powered when the ignition key switch is in the accessory position.
- **Run all ground wires to a common ground point.**
- **Press the reset button on the** display unit **after completing the connections.**

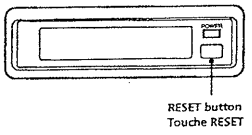
Fuse Replacement

If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction.

Warning
Use a fuse with the specified amperage rating. Use of a higher amperage fuse may cause serious damage.

Reset Button

After the installation and connections are complete, after the batteries have been changed, or when the POWER SELECT switch has been reset, be sure to press the RESET button with a ball-point pen, etc..

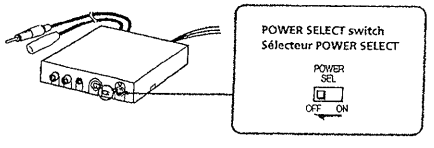


Installing the System in a Car without an Accessory switch Position

POWER SELECT switch setting

When this system is to be installed in a car without an ACC (accessory) position on the ignition switch, set the POWER SELECT switch on the side of the hideaway unit to the OFF position. After the switch has been set, the power supply to this system will be turned off whenever the OFF button on the remote commander or the POWER switch on the display unit is pressed while the system is operating.
When you turn off the ignition of your car, be sure to turn off the power to this unit with either of the buttons mentioned above in order to conserve the car battery. (If you use this system with the POWER SELECT switch set to the ON position in a car without an accessory position, the OFF button or the POWER switch set to the ON position in a car with no accessory position, the OFF button or the POWER switch will not turn off the power supply to the whole system.)
When you change the setting of the POWER SELECT switch, be sure to press the reset button on the display unit with a ball-point pen etc.

Note
When the POWER SELECT switch is set to the OFF position, you will not be able to start CD/MD playback with the remote commander while the system is off mode, (when there is no display on the display unit).
Press the POWER switch on the display unit before operating the remote commander.



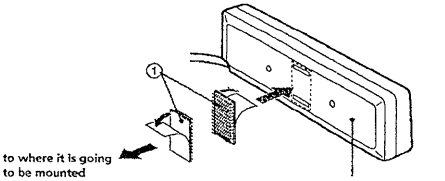
Installation

Wireless remote

- Avoid mounting it where it may:
  — hinder normal driving activities.
  — jeopardize the passengers.
  — be subjected to hot air from the heater.
  — be subjected to direct sunlight.
- After installing the system, be sure to check that the whole system can be operated by the remote commander.

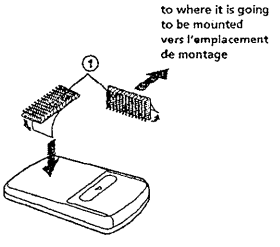
Installing the display unit

Use the supplied velcro tapes ①, and mount the display unit in a location where it will not interfere with your driving.



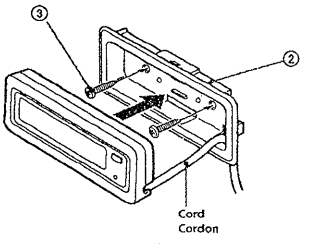
Install the wireless remote

Use the supplied velcro tapes ①, and mount the wirelss remote in a suitable location where it will not interfere with your driving.



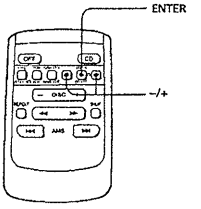
How to use the display holder (US, Canadian model only)

Fit the display unit in the supplied display holder ② when you do not secure the display unit at a particular place.



Changing the transmitting frequency

You can select the frequency of the modulated RF signal being transmitted from the hideaway unit according to the level of interference noise. The initial setting is 88.3 MHz.



1. **Press ENTER/DELETE for more than two seconds.**
2. **Press either ⊖ or ⊕ to select the frequency.**
   Each time you press ⊕, the frequencies change as follows:
   88.3 MHz → 88.7 MHz → 89.7 MHz → 89.9 MHz
   If you press ⊖, the frequencies will be displayed in reverse order.
3. **Press ENTER/DELETE for more than two seconds.**

Note
Be sure to set the frequency of your FM tuner to the newly selected frequency.

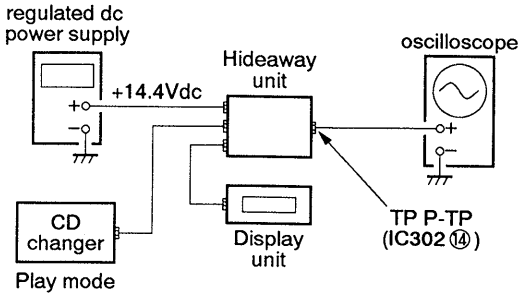
SECTION 2
ELECTRICAL ADJUSTMENT

HIDEAWAY UNIT

Note: Don't move VR302 on replacing ICs or others.

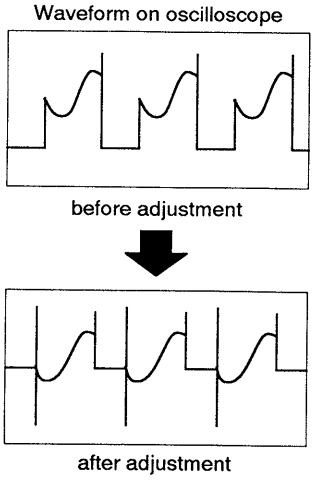
DC BALANCE ADJUSTMENT

Connection:



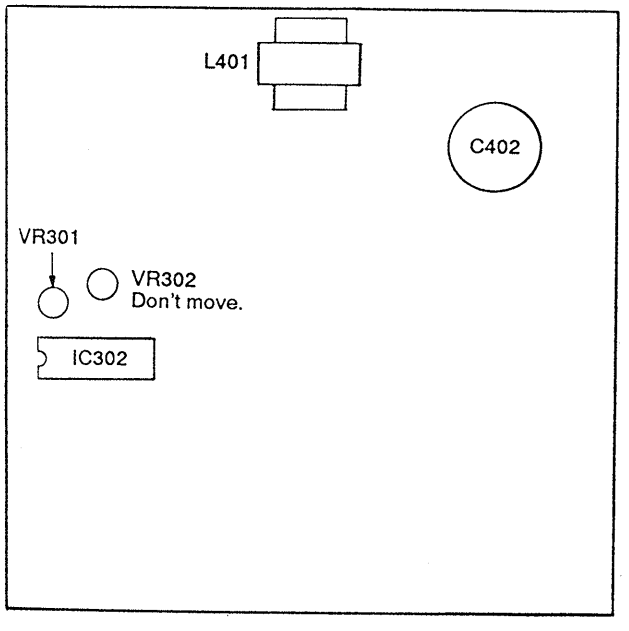
Procedure:

1. Adjust with VR301 so that the 38 kHz signal leakage becomes minimum.



Adjustment Location:

HIDEAWAY BOARD – Component Side –

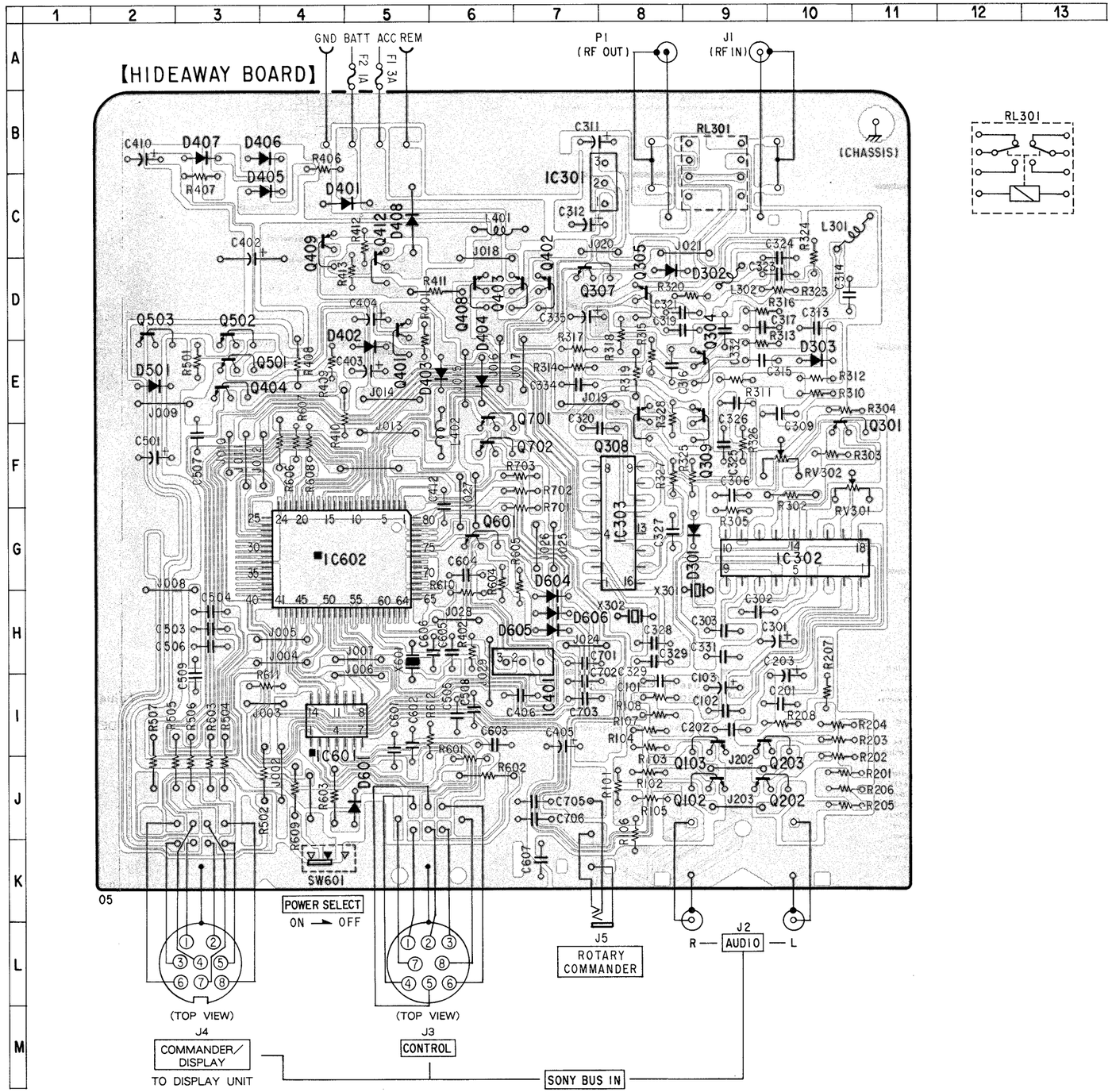


SECTION 3
DIAGRAMS

3-1. HIDEAWAY UNIT SECTION PRINTED WIRING BOARD

- **Semiconductor Location**

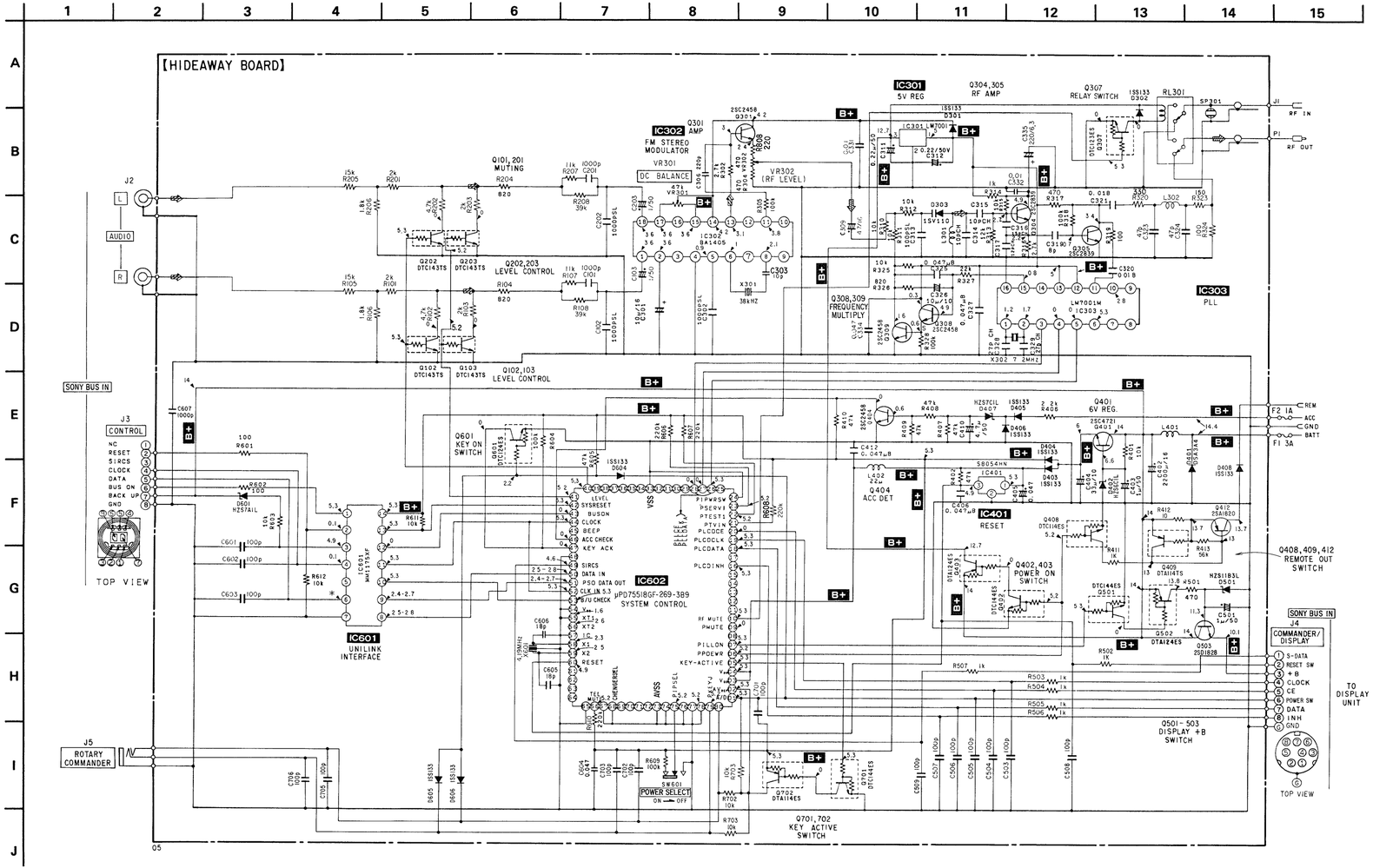
Ref. No.	Location
D301	G-9
D302	D-8
D303	E-10
D401	C-4
D402	E-5
D403	E-6
D404	E-6
D405	C-4
D406	B-4
D407	B-3
D408	C-5
D501	E-2
D601	J-5
D604	H-7
D605	H-7
D606	H-7
IC301	C-7
IC302	G-10
IC303	F-8
IC401	H-7
IC601	I-4
IC602	G-4
Q102	J-9
Q103	I-9
Q202	J-9
Q203	I-9
Q301	F-10
Q304	E-9
Q305	D-8
Q307	D-7
Q308	E-8
Q309	F-9
Q401	D-5
Q402	D-7
Q403	D-6
Q404	E-3
Q408	C-5
Q409	C-4
Q412	C-5
Q501	E-3
Q502	D-3
Q503	D-2
Q601	G-6
Q701	F-6
Q702	F-6



Note on Printed Wiring Board:

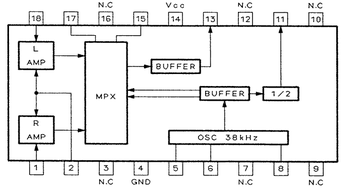
- o—— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- ▒▒ : Pattern from the side which enables seeing.

3-2. HIDEAWAY UNIT SECTION SCHEMATIC DIAGRAM

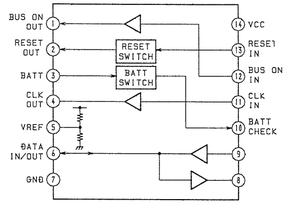


• IC Block Diagrams

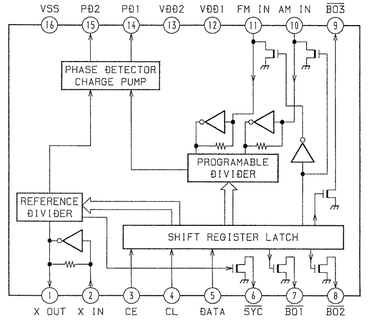
IC302 BA1405



IC601 MM1175XF



IC303 LM7001



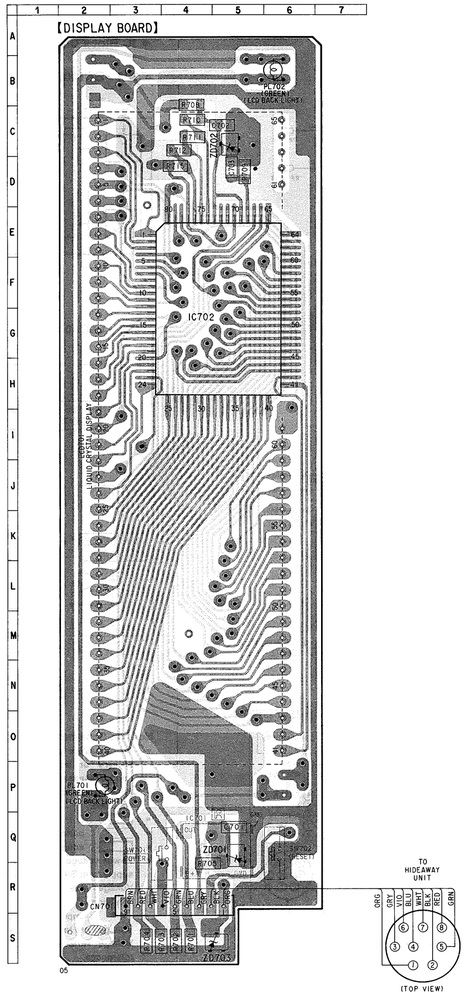
Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF
  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- B+ : B + Line.
- ▭ : panel designation.
- ▭ : adjustment for repair.
- Power voltage is dc 14.4 V and fed with regulated dc power supply from BATT and ACC terminals.
- Voltages are dc with respect to ground under no-signal conditions.
  * : Impossible to measure
- Voltages are taken with a VOM (10 MΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : CD

3-3. DISPLAY UNIT SECTION PRINTED WIRING BOARD

- **Semiconductor Location**

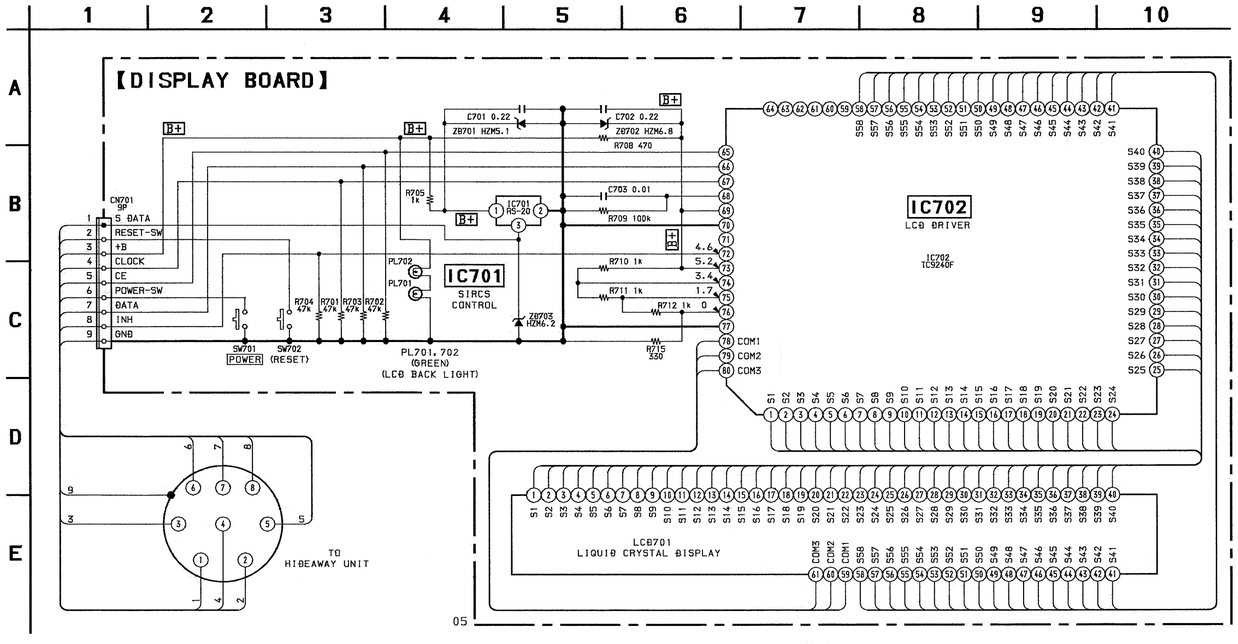
Ref. No.	Location
ZD701	Q-5
ZD702	C-5
ZD703	S-4
IC701	Q-4
IC702	E-4



Note on Printed Wiring Board:

- ○——○ : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ● : Through hole.
- : Pattern of the rear side.
- : Pattern from the side which enables seeing.
- : Chip components extracted from the rear side

3-4. DISPLAY UNIT SECTION SCHEMATIC DIAGRAM



Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- B+ : B + Line.
- : panel designation.
- Power voltage is fed from hideaway unit.
- Voltages are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (10 MΩ/V). Voltage variations may be noted due to normal production tolerances.

3-5. IC PIN FUNCTION DESCRIPTION
HIDEAWAY BOARD IC602 μPD75518GF-269-3B9

Pin No.	Pin Name	I/O	Function
1	A/D	I	A/D button input
2	AV_{REF}	I	Reference power supply
3	V_{DD}	—	Power supply
4	V_{DD}	—	Power supply
5	KEY-ACTIVE	O	Power on/$\overline{off}$ for A/D button
6	PPOWER	O	Used for remote out
7	PILLON	O	Power supply on/$\overline{off}$ to display unit
8	COLOR	O	Color selection port $\overline{amber}$/green (open)
9	PMUTE	O	Mute port on/$\overline{off}$ on source selection
10	RFMUTE	O	RF mute
11	—	—	Not used. (open)
12	—	—	Not used. (open)
13	—	—	Not used. (open)
14	—	—	Not used. (open)
15	—	—	Not used. (open)
16	PLCDINH	O	Inhibit for LCD
17	—	—	Not used. (open)
18	PLCDDATA	O	Data for LCD
19	PLCDCLK	O	Clock for LCD
20	PLCDCE	O	Chip enable for LCD
21	PTVIN	I	$\overline{There}$ is rep-key/not Initial in (V_{DD})
22	PTEST1	I	Test mode initial in $\overline{nor}$/test
23	PSERVI	I	Service mode initial in $\overline{nor}$/test
24	PIPWRSW	—	Not used. (GND)
25	—	—	Not used. (open)
26	PLLDATA	O	PLL data
27	PLLCLK	O	PLL clock
28	PLLCE	O	PLL chip enable
29	—	—	Not used. (open)
30	—	—	Not used. (open)
31	—	—	Not used. (open)
32	—	—	Not used. (open)
33	V_{SS}	—	GND
34	—	—	Not used. (open)
35	—	—	Not used. (open)
36	—	—	Not used. (open)
37	—	—	Not used. (open)
38	—	—	Not used. (open)
39	—	—	Not used. (open)
40	LEVEL	O	Output level select

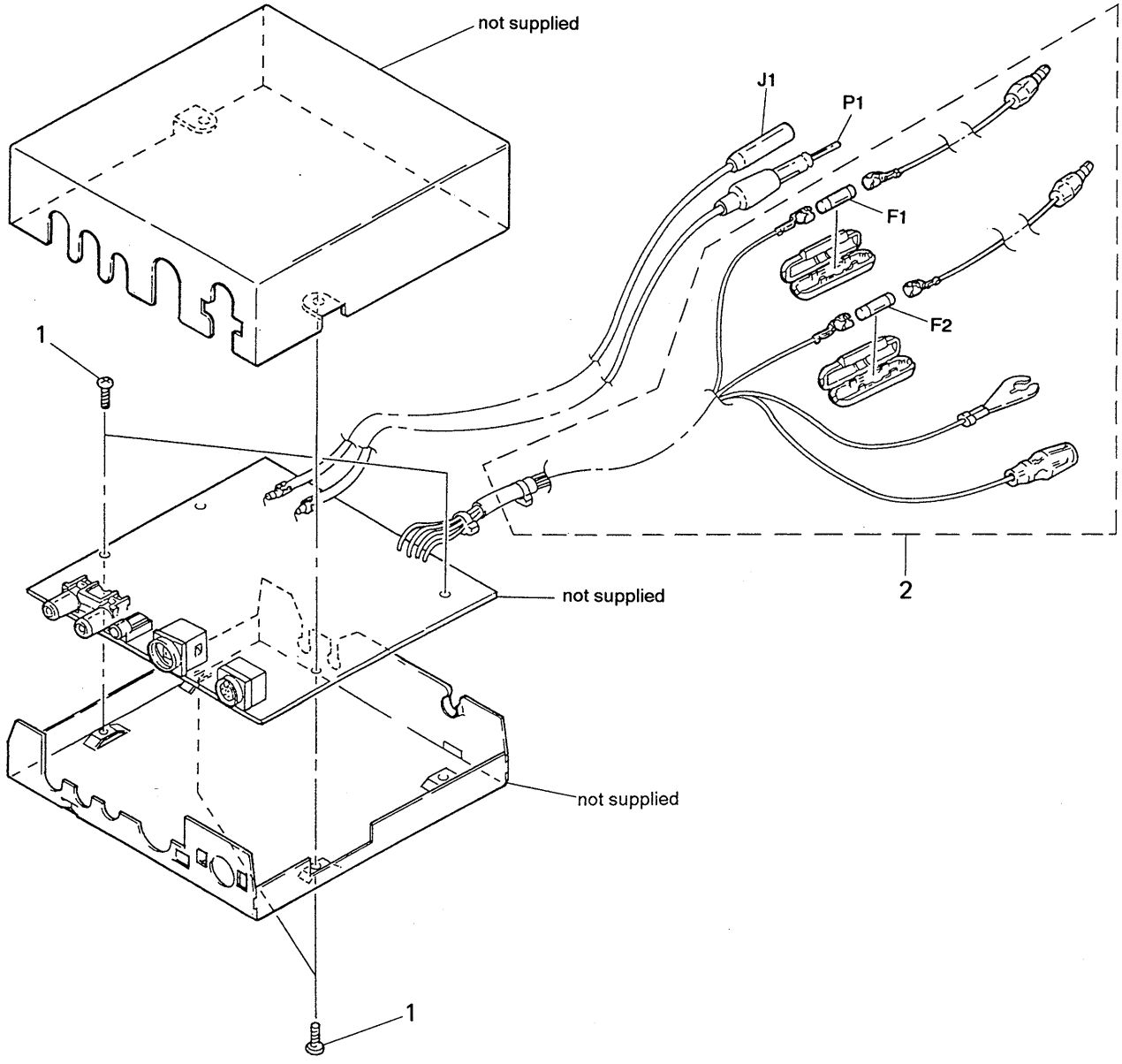
Pin No.	Pin Name	I/O	Function
41	LEVEL	O	Output level select
42	SYSRESET	O	Sony bus reset port
43	BUSON	O	Sony bus on
44	CLOCK	O	Sony bus clock out
45	BEEP	O	Beep (key on beep) out (open)
46	ACC CHECK	I	ACC check in
47	KEY ACK	I	A/D input button on: high
48	INT1	I	Cassete remote in (GND)
49	SIRCS	I	SIRCS input for remote commander receiver
50	DATA IN	I	Sony bus data in
51	PSO DATA OUT	O	Sony bus data out
52	CLK IN	I	Sony bus clock in
53	B/U CHECK	I	Port for back-up check
54	Vss	—	GND
55	XT1	—	GND
56	XT2	—	Not used. (open)
57	IC	—	GND
58	X1	O	Clock out (4.19 MHz)
59	X2	I	Clock in (4.19 MHz)
60	RESET	I	Reset in
61	—	—	Not used. (open)
62	—	—	Not used. (open)
63	—	—	Not used. (open)
64	—	—	Not used. (open)
65	P133	—	Not used. (GND)
66	TEL MUTE	I	Telephone mute (VDD)
67	P131	—	Not used. (GND)
68	CHENGERSEL	—	Not used. (GND)
69	—	—	Not used. (open)
70	—	—	Not used. (open)
71	—	—	Not used. (open)
72	—	—	Not used. (open)
73	AVss	—	GND
74	P153	—	Not used. (GND)
75	PIPSEL	I	Power select SW Power select on: "H"
76	P151	—	Not used. (GND)
77	P150	—	Not used. (GND)
78	AN3	—	Not used. (GND)
79	PKEYU	I	A/D button in for rotary commander
80	AN1	I	A/D button in for rotary commander

SECTION 4
EXPLODED VIEWS

NOTE:

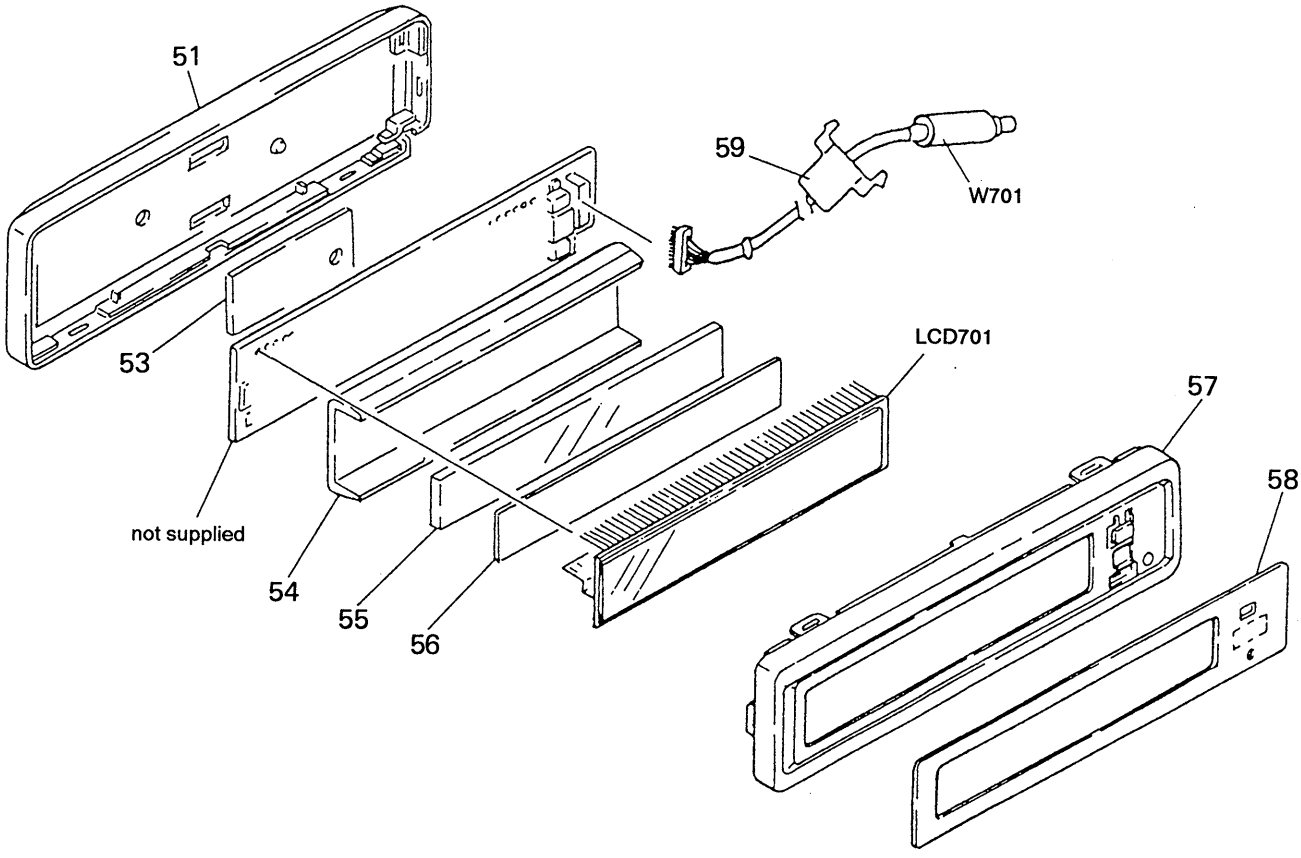
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories and packing materials are given in the last of the electrical parts list.

(1) HIDEAWAY UNIT SECTION



Ref. No.	Part No.	Description	Remark
1	9-909-573-01	TUP SCREW	
2	9-905-318-01	POWER SUPPLY CABLE	
F1	1-532-419-00	FUSE (3A 25V)	
F2	1-532-360-XX	FUSE (1A)	
J1	9-905-317-01	ANT CABLE (J) (RF-IN)	
P1	9-905-316-01	ANT CABLE (J) (RF-OUT)	

(2) DISPLAY UNIT SECTION



Ref. No.	Part No.	Description	Remark
51	3-375-166-01	CASE (REAR)	
* 53	3-375-168-01	SHEET, INSULATING	
* 54	3-367-571-02	HOLDER (LCD)	
55	3-375-168-01	PLATE (LCD), LIGHT GUIDE	
56	3-368-252-01	SHEET (DIFFUSION)	
57	3-375-165-71	CASE (FRONT)	
58	3-375-176-01	TRANSPARENCY PLATE	
59	3-908-832-01	CONNECTOR STOPPER	
LCD701	1-810-707-21	DISPLAY PANEL, LIQUID CRYSTAL	
W701	9-905-333-01	CORD (WITH CONNECTOR) (MINI DIN 8P)	

SECTION 5
ELECTRICAL PARTS LIST

DISPLAY **HIDEAWAY**

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

Ref.No.	Part No.	Description			Remark
		DISPLAY BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C701	1-163-081-00	CERAMIC (CHIP)	0.22uF		25V
C702	1-163-081-00	CERAMIC (CHIP)	0.22uF		25V
C703	1-164-232-11	CERAMIC (CHIP)	0.01uF	10%	100V
		< DIODE >			
ZD701	8-719-984-88	DIODE	HZM5.1N-B2		
ZD702	8-719-105-85	DIODE	HZM6.8N-B2		
ZD703	8-719-017-39	DIODE	HZM6.2N-B2		
		< IC >			
IC701	8-759-515-60	IC	RS-20		
IC702	8-759-246-16	IC	TC9240F		
		< LIQUID CRYSTAL DISPLAY >			
LCD701	1-810-707-21	DISPLAY PANEL, LIQUID CRYSTAL			
		< PILOT LAMP >			
PL701	1-518-524-21	LAMP, PILOT (5V/115mA)			
PL702	1-518-524-21	LAMP, PILOT (5V/115mA)			
		< RESISTOR >			
R701	1-216-089-00	METAL CHIP	47K	5%	1/10W
R702	1-216-089-00	METAL CHIP	47K	5%	1/10W
R703	1-216-089-00	METAL CHIP	47K	5%	1/10W
R704	1-216-089-00	METAL CHIP	47K	5%	1/10W
R705	1-216-049-00	METAL CHIP	1K	5%	1/10W
R708	1-216-041-00	METAL CHIP	470	5%	1/10W
R709	1-216-097-00	METAL CHIP	100K	5%	1/10W
R710	1-216-049-00	METAL CHIP	1K	5%	1/10W
R711	1-216-049-00	METAL CHIP	1K	5%	1/10W
R712	1-216-049-00	METAL CHIP	1K	5%	1/10W
R715	1-216-037-00	METAL CHIP	330	5%	1/10W

Ref.No.	Part No.	Description			Remark
		< SWITCH >			
SW701	1-572-648-11	SWITCH, TACTIL (POWER)			
SW702	1-572-648-11	SWITCH, TACTIL (RESET)			
		< CORD >			
W701	9-905-333-01	CORD(WITH CONNECTOR) (MINI DIN 8P)			
**********					
		HIDEAWAY BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-102-074-00	CERAMIC	0.001uF	10%	50V
C102	1-102-074-00	CERAMIC	0.001uF	10%	50V
C103	1-126-301-11	ELECT	1uF	20%	50V
C201	1-102-074-00	CERAMIC	0.001uF	10%	50V
C202	1-102-074-00	CERAMIC	0.001uF	10%	50V
C203	1-126-301-11	ELECT	1uF	20%	50V
C301	1-126-157-11	ELECT	10uF	20%	16V
C302	1-102-074-00	CERAMIC	0.001uF	10%	50V
C303	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C306	1-102-978-00	CERAMIC	220PF	5%	50V
C309	1-126-288-11	ELECT	4.7uF	20%	25V
C311	1-124-464-11	ELECT	0.22uF	20%	50V
C312	1-124-464-11	ELECT	0.22uF	20%	50V
C313	1-102-973-00	CERAMIC	100PF	5%	50V
C314	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C315	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C316	1-102-951-00	CERAMIC	15PF	5%	50V
C317	1-102-949-00	CERAMIC	12PF	5%	50V
C319	1-102-945-00	CERAMIC	8PF	0.5PF	50V
C320	1-102-129-00	CERAMIC	0.01uF	10%	50V
C321	1-102-129-00	CERAMIC	0.01uF	10%	50V
C323	1-101-880-11	CERAMIC	47PF	5%	50V
C324	1-101-880-11	CERAMIC	47PF	5%	50V
C325	1-101-006-00	CERAMIC	0.047uF		50V
C326	1-126-157-11	ELECT	10uF	20%	16V
C327	1-101-006-00	CERAMIC	0.047uF		50V
C328	1-102-961-00	CERAMIC	27PF	5%	50V

HIDEAWAY

Ref. No.	Part No.	Description			Remark
C329	1-102-961-00	CERAMIC	27PF	5%	50V
C331	1-102-129-00	CERAMIC	0.01uF	10%	50V
C332	1-102-129-00	CERAMIC	0.01uF	10%	50V
C334	1-101-006-00	CERAMIC	0.047uF		50V
C335	1-123-296-11	ELECT	220uF	20%	6.3V
C402	1-126-768-11	ELECT	2200uF	20%	16V
C403	1-126-301-11	ELECT	1uF	20%	50V
C404	1-124-229-00	ELECT	33uF	20%	10V
C405	1-126-157-11	ELECT	10uF	20%	16V
C406	1-101-006-00	CERAMIC	0.047uF		50V
C410	1-126-163-11	ELECT	4.7uF	20%	50V
C411	1-101-006-00	CERAMIC	0.047uF		50V
C501	1-126-301-11	ELECT	1uF	20%	50V
C503	1-102-973-00	CERAMIC	100PF	5%	50V
C504	1-102-973-00	CERAMIC	100PF	5%	50V
C505	1-102-973-00	CERAMIC	100PF	5%	50V
C506	1-102-973-00	CERAMIC	100PF	5%	50V
C507	1-102-973-00	CERAMIC	100PF	5%	50V
C508	1-102-973-00	CERAMIC	100PF	5%	50V
C509	1-102-973-00	CERAMIC	100PF	5%	50V
C601	1-102-973-00	CERAMIC	100PF	5%	50V
C602	1-102-973-00	CERAMIC	100PF	5%	50V
C603	1-102-973-00	CERAMIC	100PF	5%	50V
C604	1-101-006-00	CERAMIC	0.047uF		50V
C605	1-102-973-00	CERAMIC	100PF	5%	50V
C606	1-102-973-00	CERAMIC	100PF	5%	50V
C607	1-102-074-00	CERAMIC	0.001uF	10%	50V
C701	1-102-973-00	CERAMIC	100PF	5%	50V
C702	1-102-973-00	CERAMIC	100PF	5%	50V
C703	1-102-973-00	CERAMIC	100PF	5%	50V
C705	1-102-973-00	CERAMIC	100PF	5%	50V
C706	1-102-973-00	CERAMIC	100PF	5%	50V

< DIODE >

D301	8-719-901-33	DIODE	1SS133
D302	8-719-901-33	DIODE	1SS133
D303	8-905-312-01	DIODE	1SV110
D401	8-719-200-59	DIODE	11ES2
D402	8-719-933-39	DIODE	HZS6C1L
D403	8-719-901-33	DIODE	1SS133
D404	8-719-901-33	DIODE	1SS133
D405	8-719-901-33	DIODE	1SS133
D406	8-719-901-33	DIODE	1SS133
D407	8-719-933-43	DIODE	HZS7AIL
D408	8-719-901-33	DIODE	1SS133
D501	8-719-933-51	DIODE	HZS11C2L
D601	8-719-933-39	DIODE	HZS6C1L
D604	8-719-901-33	DIODE	1SS133
D605	8-719-901-33	DIODE	1SS133
D606	8-719-901-33	DIODE	1SS133

< FUSE >

F1	1-532-419-00	FUSE (3A/25V)
F2	1-532-360-XX	FUSE (1A)

< IC >

IC301	8-759-278-05	IC	TA78L005AP
IC302	9-909-571-01	IC	BA1405
IC303	8-759-803-37	IC	LM7001
IC401	8-759-165-82	IC	PST-600E
IC601	8-759-096-15	IC	MM1175XF
IC602	8-759-335-40	IC	uPD75518GF-269-3B9

< JACK/CONNECTOR >

J2	9-905-315-01	JACK, PIN (2P) (SONY BUS IN:AUDIO L/R)
J3	1-580-907-11	PLUG, CONNECTOR (SONY BUS IN:CONTROL)
J4	1-563-486-11	SOCKET, CONNECTOR (COMMANDER/DISPLAY)
J5	1-566-822-11	JACK (ROTARY COMMANDER)

< COIL/TRANSFORMER/INDUCTOR >

L301	9-909-572-01	TRANSFORMER
L302		Not Supplied
L401	1-421-359-00	COIL, CHOKE
L402	1-410-513-11	MICRO INDUCTOR 2.2uH

< TRANSISTOR >

Q102	8-729-900-74	TRANSISTOR	DTC143TS
Q103	8-729-900-74	TRANSISTOR	DTC143TS
Q202	8-729-900-74	TRANSISTOR	DTC143TS
Q203	8-729-900-74	TRANSISTOR	DTC143TS
Q301	8-729-119-83	TRANSISTOR	2SC2785-HFE
Q304	8-729-883-99	TRANSISTOR	2SC2839
Q305	8-729-883-99	TRANSISTOR	2SC2839
Q307	8-729-925-51	TRANSISTOR	DTC123ES
Q308	8-729-119-83	TRANSISTOR	2SC2785-HFE
Q309	8-729-119-83	TRANSISTOR	2SC2785-HFE
Q401	9-909-570-01	TRANSISTOR	2SC4721
Q402	8-729-900-89	TRANSISTOR	DTC144ES
Q403	8-729-900-63	TRANSISTOR	DTA124ES
Q404	8-729-119-83	TRANSISTOR	2SC2785-HFE
Q408	8-729-900-80	TRANSISTOR	DTC114ES
Q409	8-729-904-34	TRANSISTOR	DTA114TS
Q412	9-909-876-01	TRANSISTOR	2SA1820
Q501	8-729-900-89	TRANSISTOR	DTC144ES
Q502	8-729-900-63	TRANSISTOR	DTA124ES
Q503	9-909-895-01	TRANSISTOR	2SD1828
Q601	8-729-900-63	TRANSISTOR	DTA124ES

Ref. No.	Part No.	Description			Remark
Q701	8-729-900-89	TRANSISTOR	DTC144ES		
Q702	8-729-900-61	TRANSISTOR	DTC114ES		
		< RESISTOR >			
R101	1-247-838-11	CARBON	2K	5%	1/4W
R102	1-247-847-11	CARBON	4.7K	5%	1/4W
R103	1-247-838-11	CARBON	2K	5%	1/4W
R104	1-249-416-11	CARBON	820	5%	1/4W
R105	1-249-431-11	CARBON	15K	5%	1/4W
R106	1-249-420-11	CARBON	1.8K	5%	1/4W
R107	1-247-856-00	CARBON	11K	5%	1/4W
R108	1-249-436-11	CARBON	39K	5%	1/4W
R201	1-247-838-11	CARBON	2K	5%	1/4W
R202	1-247-847-11	CARBON	4.7K	5%	1/4W
R203	1-247-838-11	CARBON	2K	5%	1/4W
R204	1-249-416-11	CARBON	820	5%	1/4W
R205	1-249-431-11	CARBON	15K	5%	1/4W
R206	1-247-835-11	CARBON	1.5K	5%	1/4W
R207	1-247-856-00	CARBON	11K	5%	1/4W
R208	1-249-436-11	CARBON	39K	5%	1/4W
R302	1-249-422-11	CARBON	2.7K	5%	1/4W
R303	1-249-409-11	CARBON	220	5%	1/4W
R304	1-249-413-11	CARBON	470	5%	1/4W
R305	1-247-879-11	CARBON	100K	5%	1/4W
R310	1-247-855-11	CARBON	10K	5%	1/4W
R311	1-247-855-11	CARBON	10K	5%	1/4W
R312	1-247-855-11	CARBON	10K	5%	1/4W
R313	1-249-430-11	CARBON	12K	5%	1/4W
R314	1-249-417-11	CARBON	1K	5%	1/4W
R315	1-247-855-11	CARBON	10K	5%	1/4W
R316	1-249-422-11	CARBON	2.7K	5%	1/4W
R317	1-249-413-11	CARBON	470	5%	1/4W
R318	1-247-879-11	CARBON	100K	5%	1/4W
R319	1-247-807-11	CARBON	100	5%	1/4W
R320	1-249-411-11	CARBON	330	5%	1/4W
R323	1-247-811-11	CARBON	150	5%	1/4W
R324	1-247-807-11	CARBON	100	5%	1/4W
R325	1-247-855-11	CARBON	10K	5%	1/4W
R326	1-249-416-11	CARBON	820	5%	1/4W
R327	1-249-433-11	CARBON	22K	5%	1/4W
R328	1-247-879-11	CARBON	100K	5%	1/4W
R401	1-247-855-11	CARBON	10K	5%	1/4W
R402	1-247-871-11	CARBON	47K	5%	1/4W
R406	1-247-839-11	CARBON	2.2K	5%	1/4W
R407	1-247-879-11	CARBON	100K	5%	1/4W
R408	1-247-879-11	CARBON	100K	5%	1/4W
R409	1-247-879-11	CARBON	100K	5%	1/4W
R410	1-247-879-11	CARBON	100K	5%	1/4W
R411	1-249-417-11	CARBON	1K	5%	1/4W
R412	1-249-393-11	CARBON	10	5%	1/4W
R413	1-249-438-11	CARBON	56K	5%	1/4W
R501	1-249-413-11	CARBON	470	5%	1/4W
R502	1-249-417-11	CARBON	1K	5%	1/4W
R503	1-249-417-11	CARBON	1K	5%	1/4W
R504	1-249-417-11	CARBON	1K	5%	1/4W
R505	1-249-417-11	CARBON	1K	5%	1/4W
R506	1-249-417-11	CARBON	1K	5%	1/4W
R507	1-249-417-11	CARBON	1K	5%	1/4W
R601	1-247-807-11	CARBON	100	5%	1/4W
R602	1-247-807-11	CARBON	100	5%	1/4W
R603	1-247-855-11	CARBON	10K	5%	1/4W
R604	1-247-879-11	CARBON	100K	5%	1/4W
R605	1-247-871-11	CARBON	47K	5%	1/4W
R606	1-247-887-00	CARBON	220K	5%	1/4W
R607	1-247-887-00	CARBON	220K	5%	1/4W
R608	1-247-887-00	CARBON	220K	5%	1/4W
R609	1-247-879-11	CARBON	100K	5%	1/4W
R610	1-247-887-00	CARBON	220K	5%	1/4W
R611	1-247-855-11	CARBON	10K	5%	1/4W
R612	1-247-855-11	CARBON	10K	5%	1/4W
R701	1-247-855-11	CARBON	10K	5%	1/4W
R702	1-247-855-11	CARBON	10K	5%	1/4W
R703	1-247-855-11	CARBON	10K	5%	1/4W
		< RELAY >			
RL301	9-906-859-01	RELAY			
		< SWITCH >			
SW601	9-909-877-01	SWITCH, SLIDE (POWER SELECT)			
		< VARIABLE RESISTOR >			
VR301	1-230-529-11	ADJ, METAL GRAZE 470K			
VR302	1-230-519-11	ADJ, METAL GRAZE 470			
		< VIBRATOR >			
X301	1-567-093-00	VIBRATOR, CRYSTAL (38KHz)			
X302	9-905-313-01	VIBRATOR, CRYSTAL (7.2MHz)			
X601	9-907-423-01	VIBRATOR, CERAMIC (4.19MHz)			

****

MISCELLANEOUS

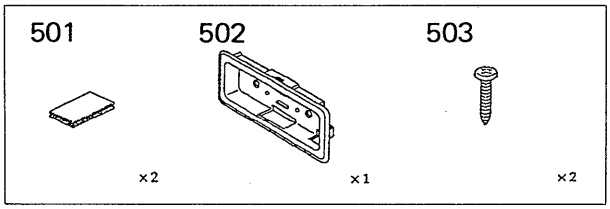
****

F1	1-532-419-00	FUSE (3A 25V)
F2	1-532-360-XX	FUSE (1A)
J1	9-905-317-01	ANT CABLE (J) (RF-IN)
P1	9-905-316-01	ANT CABLE (J) (RF-OUT)
W701	9-905-333-01	CORD (WITH CONNECTOR) (MINI DIN 8P)

****

SEE ADDITIONAL INFORMATION

Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	
		******************************	
	1-467-932-11	REMOTE COMMANDER (RM-X43)	
	3-810-760-11	MANUAL, INSTRUCTION (ENGLISH, SPANISH, CHINESE)	(E)
	3-810-760-21	MANUAL, INSTRUCTION (ENGLISH)	(US/Canadian)
	3-810-760-31	MANUAL, INSTRUCTION (FRENCH)	(Canadian)
	3-810-761-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH, CHINESE)	(E)
	3-810-761-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH)	(US/Canadian)
	9-939-081-01	LID, BATTERY (for RM-X43)	
**********			
		MOUNTING HARDWARE	
		**********	
* 501	4-916-258-01	TAPE, MAGIC	
502	3-378-208-01	HOLDER(DISPLAY)	(US/Canadian)
503	7-685-664-79	SCREW +PTP 4X20 TYPE1	(US/Canadian)



English
96A057034-1
Printed in Singapore
© 1996. 1

9-923-466-11

Sony Corporation
Mobile Electronics Company

Published by Home A&V Products Div.
Quality Engineering Dept.

RM-X59RF

SONY

SERVICE MANUAL

US Model
Canadian Model
E Model

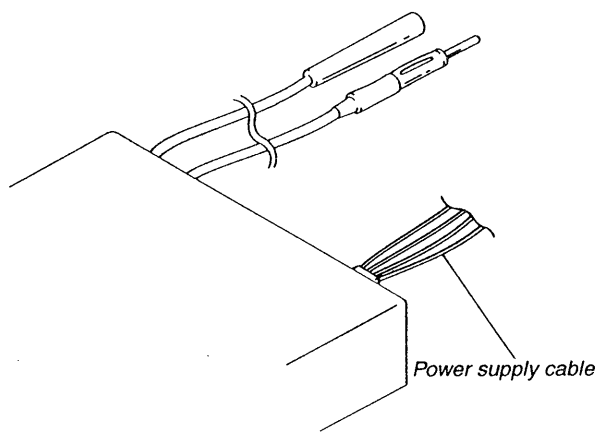
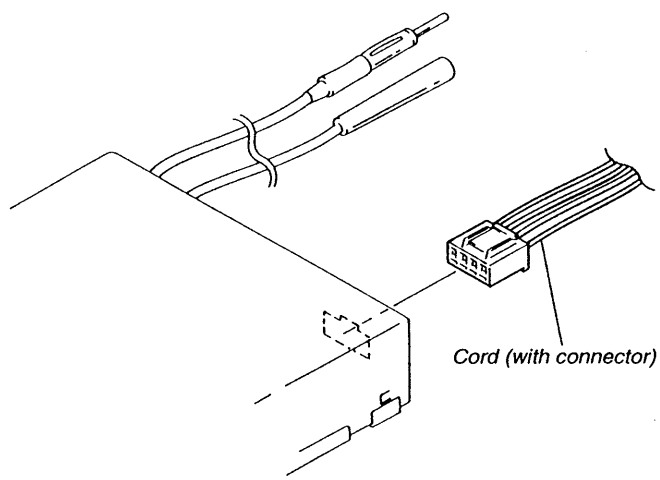
SUPPLEMENT-1

File this supplement with the service manual.

Subject: Hideaway Unit Modification

(ECN-CS700476)

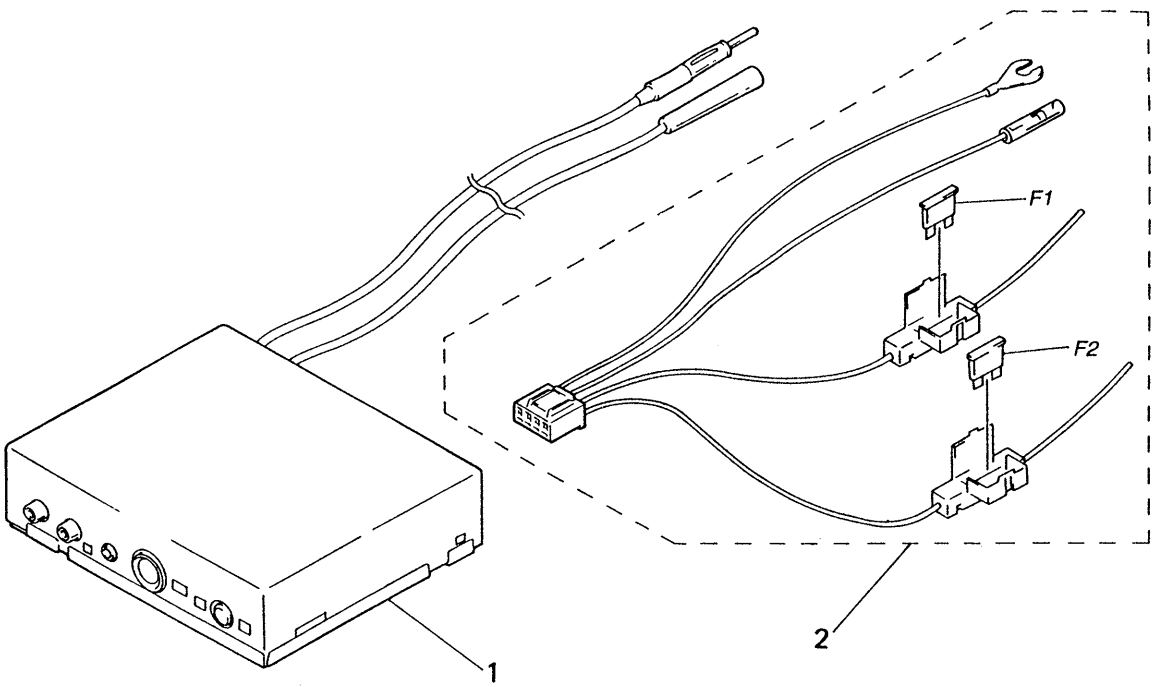
• **New/Former Discrimination**

Former Type	New Type
	

EXPLODED VIEW

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.



Ref. No.	Part No.	Description	Remark
1	1-473-880-11	RF UNIT (HIDEAWAY)	
2	1-777-519-22	CORD (WITH CONNECTOR) (POWER)	

Ref. No.	Part No.	Description	Remark
F1	1-532-731-11	FUSE (BLADE TYPE) (AUTO FUSE) (3A/32V)	
F2	1-532-798-11	FUSE (BLADE TYPE) (AUTO FUSE) (1A/32V)	

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9-923-466-81
97C0535-1D
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RM-X59RF

SONY

SERVICE MANUAL

US Model
Canadian Model
E Model

CORRECTION-1

Correct your service manual as shown below.

☛ : indicates corrected portion.

Page	INCORRECT			CORRECT		
	No.	Part No.	Description	No.	Part No.	Description
						ACCESSORIES & PACKING MATERIALS
22		———			1-777-285-11	CORD, CONNECTION (LPF)

(SPM-96055)

9-923-466-91

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96J0435-1D
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